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09/966,413	09/28/2001	George G. Pappas	LUM 180	4358

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EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
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3749

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/966,413
Filing Date: September 28, 2001
Appellant(s): PAPPAS, GEORGE G.

MAILED

JUL 12 2005

Group 3700

Frank H. Foster
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 4, 2005.

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(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the grounds of rejection to be reviewed in the brief is correct.

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(7) Argument

Appellant's brief includes arguments as to the merits of the 35 U.S.C. 103(a) rejections of claims 1 and 4.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,155,451	PIETRUCH et al.	12-2000
5,961,318	CHAMBERS et al.	10-1999
5,842,850	PAPPAS	12-1998
3,317,290	GENTRY	5-1967
2,310,019	HAMBLET	2-1943

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-13, 16, 17, and 24 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,842,850 to Pappas ("Pappas").

Pappas discloses in Figure 13 a freestanding candle (110) having a wick (84) supported by a fuel body along a longitudinal wick axis, a substantially plate/sheet (114, see Fig. 13) attached to the fuel body in proximity to a lower end of the wick, and an

upright wick support (116) contacting the plate/sheet and holding the lower end of the wick. The plate/sheet (114) is described as being mounted/attached to the bottom of candle (110) and is therefore regarded as “joined” (see col. 5 lines 14-15 and lines 45-58). The plate is not specifically termed “flame-resistant sheet,” but is described as being made of either a combustible or noncombustible material (see col. 5, lines 50-51), and functions as an equivalent alternative to the floor (138) shown in Figure 14. This lower plate (114) and the floor (138) each serve the purpose of preventing molten fuel, which extinguishes the flame, from flowing out from under the candle (see col. 6, lines 4-8). Therefore, the examiner considers that when the plate is not intended to melt with the candle, the plate would inherently have some measure of flame resistance and meets applicant’s recitation of a flame-resistant sheet.

In regard to the recitation of claim 1 that the wick support is attached to the sheet, the examiner acknowledges that Figure 13 of Pappas shows the wick support (116) attached to a pedestal (112), which is not considered part of the plate/sheet (114). The pedestal functions as one mechanism for raising the wick above the fuel to starve the candle of fuel and extinguish the flame (see col. 4, lines 30-32). However, Pappas indicates that this function may also be performed through the use of a taller wick support (see col. 4, lines 2-22 and Figs. 2-4, 9 and 10). The examiner considers that a person of ordinary skill in the art would reasonably recognize that in view of this prior art teaching of performing the alternative equivalent function extinguishing a candle flame through the use of a taller wick support, the pedestal of Figure 13 may be eliminated resulting in the wick support being attached directly to plate/sheet (113).

In regard to claims 3-9, in Figures 7-12 Pappas teaches several forms that the wick support may take including in Figure 7 one that is sealingly bonded to its support layer by means of a plug (24) forming a liquid fuel flow barrier that also functions to form a support that is formed *in situ* unitarily with the wick. This plug forms a flame resistant agent at the lower end of the wick (see col. 3, lines 38-48) and is attached to its support by adhesives (see col. 4, lines 38-41). While Pappas does not specify in what manner the plate (114) is joined/mounted to the candle (110), the examiner considers that a person of ordinary skill in the art would recognize that, as adhesives (such as those attaching plug 24 to its support) are known as a means of attachment in the candle art, it would be simply a matter of obvious design choice to select an adhesive for joining/mounting the plate (114) to the candle (110) pictured in Figure 13.

In regard to claims 11 and 12, Pappas further teaches that the wick support is high enough (i.e. at least half an inch) to prevent a candle fire (see col. 3, line 65 through col. 4, line 19).

In regard to claim 16, the plate/sheet of Pappas is shown mounted/joined to the bottom of the candle as illustrated in applicant's figures and as recited as a limitation in applicant's claim 1. Claim 16 includes a further limitation that this sheet is imbedded within the candle body. Applicant's Figures 19 and 20 show a sheet imbedded within a candle body but do not show the sheet joined to the bottom surface of the candle as required by applicant's claim 1. Accordingly, the examiner considers that applicant's other Figures showing a sheet joined to the bottom of the candle (e.g. applicant's Fig. 1) must also show a sheet that is "imbedded within a fuel body" as claimed by applicant.

The rejections of **claims 14, 15, and 18-22** under 35 U.S.C. 103(a) as being unpatentable over Pappas and further in view of either Gentry, Pietruch et al., Hamblet or Chambers et al. are not separately argued by appellant and have not been requested to be reviewed for this appeal. Accordingly, the grounds of rejections applicable to these claims are not reproduced in this Examiner's Answer. However, reference is made to the Final Rejection mailed January 24, 2005 for statements of the grounds of rejections applicable to these claims.

(11) Response to Argument

While the rejections of claims 1 and 3-22 are appealed, appellant only argues the merits of the rejections under 35 U.S.C 103(a) applied to claims 1 and 4 based on the reference to Pappas. Accordingly, the examiner addresses only the rejections of claims 1 and 4 in these remarks.

A person of ordinary skill would consider a freestanding candle with a wick holder attached to a lower plate to be obvious in view of Pappas

In asserting the patentability of claim 1, appellant argues that a person of ordinary skill in the art would have no reason to modify the embodiment of the candle shown in Figure 13 of Pappas to eliminate the pedestal (112) so as to directly attach the wick support/sustainer (116) to a lower plate (114). The examiner does not agree.

Appellant's claim 1 calls for, among things, a flame-resistant, substantially flat sheet joined to the bottom surface of the fuel body, and an upright wick support attached to the sheet. Figure 13 of Pappas shows a substantially flat sheet/plate (114) that may be noncombustible (and thus exhibiting flame resistance) (see Pappas, col. 5, lines 50-52) that is mounted/attached to the

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bottom of the candle fuel body (110) (see Pappas, col. 5, line 47). This embodiment also includes a wick support/sustainer (116). The wick support is not shown directly attached to the sheet (114) but is instead attached to a pedestal (112). However, other embodiments of Pappas teach a wick support that is not attached to a pedestal (discussed *infra*).

The examiner notes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In the present case, the pedestal serves as one mechanism to raise the end of the wick away from the bottom of candle so that after an approximately ½ inch of molten fuel is present at the bottom of the container (see Pappas, col. 4, lines 45-51). Another mechanism is to simply adjust the height of the wick support/sustainer (116) to a height necessary to maintain about ½ inch or greater level of molten fuel at the bottom of the candle (see Pappas, col. 4, lines 2-14). Thereafter, the wick will no longer be fed with fuel and the flame will go out to prevent the possibility of “flashover” (see Pappas, col. 3, lines 15-19 and col. 4, lines 45-51). The examiner has proposed that a person of ordinary skill in the art would understand, based on the teachings of the Pappas reference, that the use of a pedestal and a wick support/sustainer or simply a larger wick support/sustainer by itself are recognized as alternative means for effectively preventing “flashover.”

Further, though Pappas does not show a single embodiment of his candle with a lower plate and an attached wick support, the examiner considers that a person of ordinary skill in the

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art would consider such an arrangement obvious in view of the clear teachings of the various embodiments presented in Pappas when considered as whole.

Figure 9 of Pappas shows a candle body (80) having a wick support/sustainer (82) at the base of the candle that is not shown attached to any pedestal. Pappas makes clear how this wick support/sustainer (82) is mounted:

“The sustainer 82 is mounted at the candle floor, which for the candle 80 is the surface upon which the bottom of the wax fuel of the candle 80 is resting. This surface can be *an attached plate*, a container floor, a tray or any horizontal surface.” (*emphasis added*). (see Pappas, col. 5, lines 11-15).

Thus, the attached plate serves the desirable purpose of supporting the candle body and serving as a mounting for the wick support. The examiner considers that a person of ordinary skill in the art would consider the attached plate mentioned in the above quote to be the type of plate (114) shown in Figure 13 of Pappas.

Therefore, though Figure 13 shows that the plate (114) is attached to a pedestal (112), the collective teachings of Pappas provide that (1) a pedestal and adjusting the height of the wick support/sustainer are alternative equivalents to raising a wick, and (2) that a wick support/sustainer may be attached directly to a plate. These teachings would suggest to a person of ordinary skill in the art that is obvious that a tall wick support/sustainer may be substituted for the combination of a pedestal and smaller wick support/sustainer and that this wick support/sustainer (116) to be directly attached to the plate (114) to desirably provide a support surface for the candle body and wick support/sustainer while also maintaining the prevent flashover characteristics of the wick support/sustainer.

The examiner considers that appellant's arguments regarding this issue have been fully addressed. However, the examiner notes in particular that applicant's arguments beginning on

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page 8 of the Appeal brief stating that the presence of a plate (114) is solely for the purpose of preventing the pedestal from being displaced from a central position and that “[n]o plate would be used if the tall wick support were used because a plate would not be needed” are clearly unsupported by the disclosure of Pappas. As noted above in the quote reproduced from column 5 of Pappas, the embodiment of Figure 9 clearly shows no pedestal but Pappas clearly states in discussing this embodiment the candle and wick support may be mounted to an attached plate (col. 5, lines 11-15). Thus, contrary to appellant’s assertion, attaching a wick support to a plate does not “teach away” from the embodiment of Figure 9 but is instead *expressly contemplated* in this embodiment.

Accordingly, the examiner considers that the limitations of applicant’s claim 1 are fully met by the prior art.

The use of the particular fastening means of an adhesive for the attached sheet
is obvious in the candle art in view of the teachings of Pappas

In asserting the patentability of claim 4, appellant argues that the use of an adhesive backing for attaching the sheet to the bottom of the fuel body would not be obvious to a person of ordinary skill in the art. The examiner does not agree.

Pappas clearly discloses that the plate (114) is mounted to the bottom of the candle (110) (see col. 5, lines 47). Pappas has also previously termed such a plate “an attached plate” (see col. 5, line 14). Pappas does not go into any further detail as to the specifics of type of mounting or attaching means employed. The examiner has reasoned that a person of ordinary skill in the art would turn to well-known types of attaching means to secure the plate to the bottom of the candle. Appellant concedes that adhesives are well known as a common way of joining two

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things together but disputes that adhesives would be used as proposed by the examiner and specifically that adhesives would be used to join functional structures (see Brief, p. 13).

To support the examiner's conclusion, the examiner has pointed to the specific teachings of Pappas as to the use of adhesives for joining/attaching candle components. Pappas clearly states that:

“a pedestal can be merely attached to an existing container by *adhesives*, welding, or other known attaching means.” (*emphasis added*) (Pappas, col. 4, lines 38-41).

This express disclosure in Pappas as to joining functional structures in a candle appears to contradict appellant's assertion that a person of ordinary skill in the art would not recognize adhesives as suitable for this purpose. As noted in the discussion pertaining to claim 1 above, the examiner consider it would be obvious to a person of ordinary skill in the art would consider attaching a wick support directly to a lower plate. The examiner further considers that as adhesives are a well known attachment means (as admitted by appellant) and as they are known as a suitable means of attachment as disclosed by Pappas, it would be obvious to a person of ordinary skill in the art to use adhesives to join candle components in the manner recited in appellant's claim 4.

Accordingly, the examiner considers that the limitations of appellant's claim 4 are fully met by the prior art.

Appellant's claims 2, 3, and 5-22

Though appellant, has not separately argued the patentability of claims 2, 3, and 5-22 in the Brief filed May 4, 2005, the examiner considers that the rejections of these claims are fully supported by the authority and rationale relied upon in the Final Rejection mailed January 24, 2005.

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For the above reasons, it is believed that the rejections should be sustained.

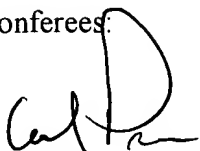
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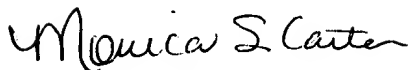
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